

Storm Data and Unusual Weather Phenomena

April 2004

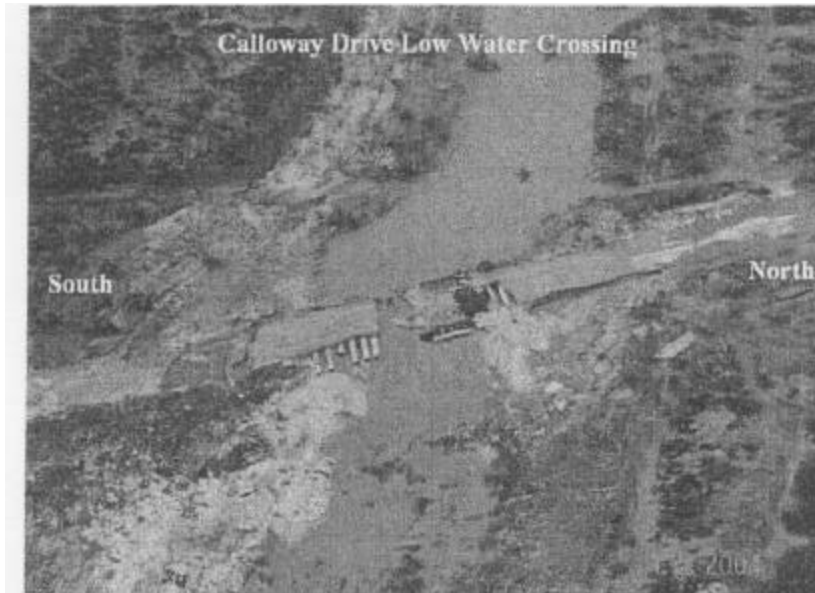
Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons		Estimated Damage		Character of Storm
					Killed	Injured	Property	Crops	
<u>NEW MEXICO Southeast</u>									
Eddy County Carlsbad	02	2215MST 2223MST			0	0	0	0	Hail(1.25)
Penny to half dollar size hail was reported by the public and trained spotters on the north side of the city of Carlsbad.									
Eddy County Carlsbad to 10 WSW Carlsbad	02 03	2230MST 0100MST			0	0			Flash Flood
Eddy County Carlsbad	02	2230MST 2240MST			0	0	30K	0	Hail(1.75)
Nickel to golf ball size hail was reported covering the ground in the city of Carlsbad.									
Eddy County 10 WSW Carlsbad	02	2305MST 2310MST			0	0	0	0	Hail(1.00)
Quarter sized hail was reported along Dark Canyon Road, making the road impassable.									
Severe thunderstorms developed over Eddy County, southwst of the community of Carlsbad, during the late evening on April 2. These thunderstorms progressed northeast into Carlsbad, inundating city streets with 1 to 4 feet of water. Numerous hail reports were also received, with two distinct periods of hail occurring over the city within a one hour period.									
Lea County 8 NE Eunice	03	1430MST 1434MST			0	0			Hail(0.88)
Lea County Eunice to Hobbs	03 04	1525MST 1545MST			0	0	0	0	Flash Flood
A series of thunderstorms, began on Saturday April 3 and continued into the early afternoon on Sunday, resulted significant flooding over Lea County - especially over the eastern portions of the county.									
Many roads across the eastern half of Lea County were closed due to flooding including Highway 18 to Hobbs, Highway 176 and State Road 8 west of Eunice, and Highway 62/180 from Hobbs to Seminole. During Sunday morning, the community of Nadine, between Eunice and Hobbs, also reported signifi cant flooding.									
Lea County Eunice	03	1737MST			0	0	0	0	Hail(0.88)
Lea County 8 W Eunice	03	1910MST			0	0	0	0	Hail(0.75)
Eddy County 12 NW Whites City to Carlsbad	03 04	1940MST 1500MST			0	0	0	0	Flash Flood

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				Killed	Injured	Property	Crops	

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NEW MEXICO Southeast



During the evening of April 3, a National Weather Service spotter reported Dark Canyon Road, 5 miles east of Highway 137, was under 7 feet of water. Additional reports of flooding, from local law enforcement personnel and the general public, also started being received in the southwest portions of the city of Carlsbad. Just after midnight, early Sunday morning, Highway 285 became impassable due to flooding 10 miles northwest of Carlsbad. Flooding along County Roads 658 and 672 southwest of Carlsbad resulted in several evacuations during the early morning hours on Sunday and helicopter rescues along Dark Canyon Draw. As late as Sunday afternoon, flooding of low-lying areas around Carlsbad continued along the Pecos River, as well as along Dark Canyon, Dagger, Rocky Arroyo, and Hackberry Draws.

An Eddy County flood survey revealed that three different factors contributed to the record flooding in and near Carlsbad. Floodwaters from Rocky Arroyo Draw fed into the Pecos River north of Avalon Reservoir. This flow along with heavy rainfall from thunderstorms resulted in a required release of water from the Avalon Reservoir. Radar estimated rainfall totals of 3 to 4 inches fell near and west of Avalon Reservoir between 900 PM MST on April 3rd through 100 AM MST on Sunday, April 4th. Releases from the reservoir began near 800 PM MST on April 3rd, with a measured peak rate of 14,800 cfs (cubic-feet per second) at around 400 AM MDT Sunday morning. This release of water eliminated the potential danger of a dam failure, but resulted in the washout of Calloway Drive just downstream from the release point on Avalon Reservoir.

The second factor contributing to the record flooding was extremely high flow through the Dark Canyon Draw into downtown Carlsbad. Radar estimated rainfall of 1 to 3 inches fell over and southwest of Dark Canyon during the evening and overnight hours of Saturday April 3rd. This rainfall led to catastrophic flash flooding along the Dark Canyon Draw from southwest portions of Carlsbad into the downtown area. A wall of water moved down Dark Canyon Draw at approximately 1:30 AM MST Sunday morning.

The third factor that contributed to the flooding was the failure at several points of the CID (Carlsbad Irrigation District) canals. These CID channels, used primarily to irrigate area alfalfa fields, began failing due to runoff from the 8-12 inches of rainfall over the three days crossing perpendicular to the CID channels. Erosion of the channels began occurring due to the high volume of water flowing over them. As the channels finally failed, water flowed into adjacent neighborhoods. The community hardest hit by this runoff was the La Huerta neighborhood in northeastern Carlsbad. As a result of this flooding, 6 to 12 inches of water was left standing throughout most of the La Huerta area with higher amounts at isolated points.

Lea County
Tatum

08	1708MST 1815MST	0	0	25K	0	Hail(1.75)
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Hail ranging in size from pennies to golfballs was reported in the city of Tatum. Hail accumulated on the ground up to four inches deep. Snowplows were used to clear the hail from the city streets. Numerous reports of damage to vehicles were received.

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					Killed	Injured	Property	Crops	
<u>NEW MEXICO Southeast</u>									
Lea County Caprock	08	1750MST			0	0	0	0	Hail(0.75)
Lea County Caprock	08	1820MST			0	0	0	0	Hail(0.75)
Penny size hail was reported in Caprock. This was the second severe storm to affect that community within an hour.									
Several severe thunderstorms affected the northern parts of Lea County during the late afternoon and early evening of the 8th. These storms developed along a dryline that stretched across the eastern New Mexico Plains. The most significant damage occurred in Tatum, where large hail resulted in widespread damage to vehicles.									
Lea County 5 NE Lovington	19	1430MST			0	0	0	0	Hail(0.88)
Penny to nickel size hail was reported northeast of the Lovington.									
Lea County Eunice to 4 E Eunice	19	1528MST 1533MST			0	0	0	0	Hail(1.00)
Penny to quarter size hail was reported near Eunice.									
Two severe thunderstorms developed along a dryline and affected parts of the Lea County during the late afternoon of the 19th. Large hail up to the size of quarters resulted from these storms.									
Eddy County 2 W Artesia	28	1810MST			0	0	0	0	Thunderstorm Wind (MG57)
A dry microburst resulted from high based thunderstorms over northern Eddy County. These storms later encountered deep low level moisture and intensified over rural sections of eastern Eddy County.									
Lea County Crossroads	30	1541CST 1544CST			0	0	0	0	Hail(0.88)
Lea County Crossroads	30	1541CST 1544CST			0	0	0	0	Thunderstorm Wind (EG52)
An isolated severe thunderstorm resulted in nickel size hail and severe thunderstorm winds in the Crossroads community in northern Lea County during the late afternoon of the 30th.									
<u>TEXAS West</u>									
Mitchell County 2 SW Westbrook to Westbrook	02	1243CST 1303CST			0	0	0	0	Hail(0.88)
Penny to nickel size hail reported by the public.									
Gaines County Seminole	02	1725CST			0	0	0	0	Hail(0.75)
Gaines County Seminole	02	1725CST			0	0			Hail(0.88)
Gaines County 22 W Seminole to 10 W Seminole	03	1554CST 1700CST			0	0			Hail(0.88)

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Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed Injured		Estimated Damage Property Crops		Character of Storm
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Thunderstorms developed over Lea County, New Mexico during Saturday afternoon on April 3. The most notable of these thunderstorms was a supercell thunderstorm that developed near Eunice, NM at 336 PM CST and moved northeast into Gaines County. This storm moved slowly northeast across the western portions of Games County, crossing Highway 62/180. Due to the slow movement and large size of the storm, higher reflectivities stayed over Highway 62/180 from 3:54 pm to 5 pm CST. This resulted in up to 1 1/2 feet of hail accumulation and the closing of Highway 62/180.

Reeves County

20 SW Toyah	03	1622CST			0	0	100K		Hail(4.25)
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Reeves County

20 SW Toyah	03	1640CST			0	0			Hail(3.00)
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Presidio County

10 E Presidio to 15 ESE Presidio	03	1650CST 1657CST			0	0	20K		Hail(1.00)
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Jeff Davis County

35 NW Ft Davis	03	1705CST 2000CST			0	0			Flash Flood
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Flooding was reported along Highway 118, 2.5 miles south the Interstate 10.

Jeff Davis County

36 NW Ft Davis	03	1708CST			0	0			Hail(1.75)
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Reeves County

15 W Toyah	03	1708CST			0	0			Hail(1.75)
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Brewster County

Lajitas	03	1725CST 1747CST			0	0			Hail(4.25)
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Supercell thunderstorms moving northeast into the extreme southwest portion of Brewster County produced grape to softball size hail for 22 minutes. Reports indicated that the softball size hail occurred around 530 pm CST.

Gaines County

20 W Seminole	03	1735CST 1742CST			0	0	10K		Hail(2.75)
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Nickel to baseball size hail was reported covering the ground at the intersection of Highway 62/180 and Farm to Market Road 331.

Presidio County

20 SW Marfa	03	1747CST			0	0			Hail(1.00)
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Presidio County

25 SE Redford	03	1750CST			0	0	20K		Hail(2.50)
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		Time	Path	Path	Number of		Estimated		
Location	Date	Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Damage Property	Crops	Character of Storm
TEXAS West									
		Tennis ball size hail resulted in car and camper damage in extreme southern portions of Presidio County.							
Jeff Davis County									
Valentine	03	1755CST 1815CST			0	0			Hail(0.88)
Reeves County									
6 W Toyah	03	1815CST			0	0			Hail(1.00)
Gaines County									
4 NW Seminole	03	1822CST			0	0			Hail(1.00)
Gaines County									
Seminole to	03	1835CST			0	0			Flash Flood
16 NW Seminole	04	1530CST							
		Thunderstorms which began on the afternoon of April 3, continued into the early Sunday afternoon on April 4. This resulted in catastrophic flooding across the western half of Gaines County. The flooding was also compounded by additional flooding caused by the melting of over 1 foot of hail in the western portions of the county. Many roads were reported closed due to flooding, including Highway 214 between Seminole and Denver City and Highway 62/180 between Seminole and Hobbs. Flooding was reported at the intersection of County Road 331 and Highway 180 at Seminole Draw, along County Road 308 near Highway 181, and along County Road 347 near the stateline. Water 5-6 feet deep was reported 4-5 miles north of Highway 62/180 on Farm to Market Road 1757.							
Gaines County									
13 SW Seminole	03	1905CST	0.1	25	0	0	0		Tornado (F0)
		A weak tornado was reported southwest of Seminole.							
Reeves County									
2 NW Balmorhea to	03	1917CST	1	25	0	0	0		Tornado (F0)
2 N Balmorhea		1925CST							
		A tornado was viewed by a DPS trooper moving east at 10 mph. The tornado moved over rural areas with no damage noted.							
Reeves County									
Verhalen	03	1930CST			0	0			Thunderstorm Wind (EG52)
Reeves County									
4 NW Verhalen	03	1933CST 1934CST	0.1	25	0	0			Tornado (F0)
		A DPS trooper observed the tornado "touch down and then go right back up".							
Reeves County									
5 SW Pecos	03	1951CST 1952CST	0.1	25	0	0	0		Tornado (F0)
		A tornado was reported near the town of Pecos.							
Reeves County									
Pecos	03	2002CST			0	0			Hail(0.88)
Gaines County									
15 SW Seminole to	03	2009CST			0	0			Funnel Cloud
5 SW Seminole		2035CST							
		There were several reports of funnel clouds by trained spotters and the general public.							
Reeves County									
15 S Pecos	03	2030CST 2034CST			0	0			Hail(1.75)
Gaines County									
15 W Seminole	03	2035CST			0	0			Hail(1.00)
Brewster County									
50 E Lajitas	03	2215CST			0	0	30K		Hail(1.75)
		Seven vehicles received hail during the storm.							
Reeves County									
10 N Balmorhea	03 04	2235CST 0130CST			0	0			Flash Flood
		Flooding was reported along Farm to Market Road 2903 between Toyah and Balmorhea, making the road impassible. Farm to Market Road 869 and State Highway 17 were also closed due to flooding.							

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		Local/ Standard	Length (Miles)	Width (Yards)	Killed	Injured	Property	Crops	
<u>TEXAS West</u>									
Brewster County									
5 E Alpine	04	0130CST			0	0			Hail(1.75)
		Golfball hail was reported by the Sheriffs office.							
Reeves County									
Toyah	04	0200CST 1430CST			0	0	1M	0	Flash Flood



8 to 12 inches of rainfall resulted in the failure of a protective levee near Toyah. With the failure of this dike, 3 to 4 feet of water inundated the town of Toyah and prompted the evacuation of the town's residents. While 19 people in the town of 103 elected to stay through the flood event, 40 people were moved to a Red Cross shelter in the nearby community of Pecos. The extensive flooding in Toyah left virtually every home with flood damage. Damage to these homes ranged from very minor to completely destroyed.

A bridge along Interstate 20 east of Toyah and 15 miles west of Pecos, over the normally dry Salt Draw, was also washed away Sunday evening by fast-moving water from the upstream failed dike. Authorities said that advance warning of a potential bridge collapse allowed the road to be closed to both eastbound and westbound traffic. A state official for TXDOT said that 86 feet of roadway in the eastbound lanes fell into the river, and that additional 40-foot segments on each side of the river were also damaged. On the westbound side, one of the upright supports holding up the bridge had moved six to eight inches, opening a crack in the roadway.

No fatalities were reported with the bridge collapse, however 5 indirect fatalities occurred along the detour road, U.S. Highway 285 south of Pecos in a multi-vehicle wreck.

Flooding lingered until late afternoon on Sunday April 4 with Highway 17 and Farm to Market Roads 2903, 869, and 1450 still reporting flooding.

Pecos County 25 W Ft Stockton	04	0230CST			0	0	0	0	Hail(0.88)
			Nickel size hail was reported along Interstate 10 by a Sheriffs Deputy.						
Pecos County 1 SE Hovey	04	0235CST			0	0	0	0	Hail(1.75)
			Golfball sized hail reported by Sheriffs deputy.						
Reeves County 7 WSW Pecos	04	0300CST 0600CST			0	0			Flash Flood

Flooding was reported along Farm to Market Road 869.

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TEXAS West								
Pecos County								
Ft Stockton	04	0359CST 0415CST			0	0	0	Hail(1.75)
								A high precipitation supercell formed in extreme southwestern Pecos County early in the morning on Sunday, April 4th, and moved to the northeast, eventually affecting Fort Stockton. This thunderstorm produced extremely heavy rainfall, very high wind gusts (80 mph estimated), hail up to the size of golfballs, and flooding as it moved across the city of Fort Stockton. Several areas of Fort Stockton were affected by the storm. One of the hardest hit areas was the James Rooney Memorial Park. Comanche Creek, which runs through this, park, was well out of its banks as can be seen in the following pictures. The most intense reflectivities of the storm went over the southeastern half of the city, which is where the park is located. Quarter to Golf ball sized hail reported by public. The hail lasted for ten minutes and accumulated to 3 inches deep in some places.
Pecos County								
Ft Stockton	04	0415CST			0	0	0	Thunderstorm Wind (EG70)
Pecos County								
5 ENE Belding to Ft Stockton	04	0500CST 1200CST			0	0	0	Flash Flood
								Thunderstorms moving across Pecos County produced flash flooding over the central and northeast portions of the county. Old Alpine Highway was closed between Fort Stockton and Belding. Additionally, Highway 285 between Fort Stockton and Sanderson was closed. During the event, a sheriff deputy's vehicle and a truck stalled in high water. This resulted in two high water rescues.
Jeff Davis County								
Ft Davis	04	0738CST			0	0	0	Hail(0.88)
Reeves County								
Pecos	04	0920CST 1230CST			0	0	0	Flash Flood
								Flooding was reported along Highway 285. Street flooding was also reported in the city of Pecos.
Ward County								
Barstow	04	0927CST 1230CST			0	0	0	Flash Flood
								A thunderstorm moving out of Pecos County produced flooding over portions of Ward County during the morning of Sunday, April 4. Several streets were flooded in the town of Barstow. Also...flooding was reported at the intersection of Interstate 20 and Farm to Market Road 1219 and along a 4 miles stretch southward along Farm to Market Road 1219.
Ector County								
Odessa	04	1243CST 1600CST			0	0		Flash Flood
								Thunderstorms produced up to 5 inches of rain in western portions of the city of Odessa along with flash flooding. Flash flooding was reported in the western and northeast portions of Odessa and also in the town of Gardendale. The flooding finally subsided by late afternoon.
Andrews County								
16 WNW Frankel City	04	1245CST 1430CST			0	0		Flash Flood
								Flooding was reported at a guardhouse in the western portions of Andrews county. Additionally, several feet of water was reported on field roads across the western portion of the county.
Jeff Davis County								
4 W Ft Davis	05	1335CST			0	0		Hail(0.88)
Presidio County								
20 NW Marfa	05	1351CST			0	0		Hail(0.75)
Brewster County								
4 N Study Butte to 7 N Study Butte	05	1550CST 1623CST			0	0	0	Hail(0.75)
Reeves County								
Balmorhea to 9 E Pecos	05	1615CST 1645CST			0	0	0	Hail(2.75)
								Golfball to baseball size hail fell in Balmorhea and also along Farm to Market Road 1450 east of Pecos. Hail was still covering FM 1450 at 915 pm that evening.
Midland County								
Midland to Greenwood	05	1636CST 1657CST			0	0		Hail(0.88)

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					Killed	Injured	Property	Crops	
<u>TEXAS West</u>									
Penny to nickel size hail was reported in the communities of Greenwood and Midland.									
Brewster County 25 ENE Panther Junction	05	1720CST			0	0	50K	0	Hail(4.00)
House windows and cars were heavily damaged.									
Brewster County 25 ENE Panther Junction	05	1720CST			0	0	0	0	Thunderstorm Wind (EG61)
Howard County Big Spring	05	1925CST 2230CST			0	0	0	0	Flash Flood
Heavy rains forced road closures in the city of Big Spring.									
Mitchell County 7 N Westbrook	05	2100CST			0	0	0	0	Flash Flood
06 0000CST									
Six inches of water was reported on FM 1229.									
Scurry County Snyder to 9 SE Hermleigh	05	2113CST			0	0	0	0	Flash Flood
06 0000CST									
Up to 18 inches of water was reported on city streets in Snyder. Flooding was also reported in the community of Hermleigh and along Highway 84 southeast of Hermleigh.									
Scurry County 6 SE Hermleigh	05	2250CST			0	0	0	0	Flash Flood
06 0200CST									
Water and debris running across Highway 84.									